

PARALLEL TASK SCHEDULING SYSTEM FOR COMPUTERS

ABSTRACT OF THE DISCLOSURE

A parallel task scheduling system in a multi-threaded computing environment includes a plurality of parallel task queues. Each task queue is associated with a respective worker thread from a plurality of worker threads. Each new task is assigned to one of the task queues. That assignment process including selecting a random queue and, from that starting point, locating an empty queue (if one exists). The task is then placed on that empty queue for processing.

Typically, the worker thread associated with the identified task queue will process the queued task. If the worker thread is busy processing another task, the queued task may be stolen by a free thread. A waiting task, can thus be processed in an efficient manner.